

CLAIMS

We claim:

1. A method for determining the location of a mobile unit using a telephone number of a wireline telephone in the vicinity of said mobile unit, comprising:

receiving at a server said telephone number transmitted from said mobile unit using wireless communication through a data network;

retrieving an address associated with said telephone number in said server; and

retrieving a location of said mobile unit based on said address.

2. The method of Claim 1, further comprising:

returning said location determined using said address to said mobile unit via wireless communication through said data network.

3. The method of Claim 1, further comprising:

obtaining at said server location-relevant information using said location.

4. The method of Claim 3, further comprising:

returning said location-relevant information to said mobile unit via wireless communication through said data network.

5. The method of Claim 3, wherein said obtaining at said server said location-relevant information using said address comprises:

querying a second server for said location-relevant information based on said location; and

transmitting said location-relevant information from said second server to said server via said data network.

5        6.    The method of Claim 1, further comprising:  
         providing said location determined using said  
         telephone number to an emergency service providing  
         assistance to said mobile unit.

7.    The method of Claim 6, wherein said emergency service is a local 911 emergency.

10       8.    The method of Claim 1, wherein said data network  
         comprises a publicly shared network such as the Internet.

9.    The method of Claim 1, wherein said mobile unit communicates over a wireless link with a gateway coupled to said data network.

15       10.   The method of Claim 1, wherein said wireless  
         communication comprises communication through a cellular  
         telephone network.

20       11.   The method of Claim 1, wherein said wireless  
         communication comprises communication via a cellular  
         telephone modem.

12.   The method of Claim 1, wherein said wireline telephone is a pay phone.

25       13.   The method of Claim 3, wherein said location-relevant information includes an address of a local point of interest.

14.   The method of Claim 1, wherein said retrieving said address associated with said telephone number in said server comprises:

querying a first database containing information  
for mapping said telephone number to said address.

15. The method of Claim 14, wherein said retrieving a  
location of said mobile unit based on said address  
5 comprises:

querying a second database containing mapping  
information for mapping said address to said location.

16. The method of Claim 15, wherein said location  
comprises a position coordinate comprising longitude and  
10 latitude information.

17. The method of Claim 16, wherein said mapping  
information for mapping said address to said location is  
obtained using Geo-Coding.

18. A method for providing location-relevant  
15 information over a data network to a mobile unit,  
comprising:

receiving at said server a first telephone number  
associated with a first wireline telephone, said first  
telephone number being transmitted from said mobile  
20 unit using wireless communication through said data  
network;

retrieving a first address associated with said  
first telephone number in said server; and  
retrieving a first location based on said first  
25 address.

19. The method of Claim 18, wherein said first  
wireline telephone is near the vicinity of said mobile unit.

20. The method of Claim 18, wherein said first  
wireline telephone is at a destination location of interest.

21. The method of Claim 18, further comprising:  
returning said first location to said mobile unit  
via wireless communication through said data network.

5 22. The method of Claim 18, further comprising:  
obtaining at said server location-relevant  
information using said first location; and  
returning said location-relevant information to  
said mobile unit via wireless communication through  
said data network.

10 23. The method of Claim 22, wherein said obtaining at  
said server location-relevant information using said first  
location comprises:

querying a second server for said location  
relevant information based on said first location; and  
15 transmitting said location-relevant information  
from said second server to said server via said data  
network.

24. The method of Claim 18, wherein said first  
location comprises a position coordinate comprising  
20 longitude and latitude information.

25. The method of Claim 24, wherein said retrieving  
said first location based on said first address comprises:  
mapping said address to said location using Geo-  
Coding.

26. The method of Claim 20, further comprising:  
receiving at said server a second telephone number  
of a second wireline telephone in the vicinity of said  
mobile unit, said second telephone number being  
transmitted from said mobile unit using wireless  
30 communication through a data network;

retrieving a second address associated with said second telephone number in said server; and

retrieving a second location of said mobile unit based on said second address.

5        27. The method of Claim 26, further comprising:  
         obtaining at said server location-relevant information using said first location and said second location; and

         returning said location-relevant information to  
10        said mobile unit via wireless communication through said data network.

         28. The method of Claim 27, wherein said location-relevant information comprises driving direction from said second location to said first location.

15        29. The method of Claim 26, wherein each of said first and second locations comprises a position coordinate comprising longitude and latitude information.

         30. The method of Claim 29, wherein said first and second addresses are mapped to said first and second  
20        locations, respectively, using Geo-Coding.

         31. A location-relevant service system, comprising:  
         a server accessible over a data network, said server having a database for storing information for mapping a wireline telephone number to an address and  
25        information for mapping an address to a location; and  
         a mobile unit coupled to said data network over a first wireless link and providing a first telephone number of a first wireline telephone to said server;

wherein said server determines a first location based on said first telephone number using said information for mapping in said database.

32. The location-relevant service system of Claim 31,  
5 wherein said first wireline telephone is in the vicinity of said mobile unit and said first location is indicative of a location of said mobile unit.

33. The location-relevant service system of Claim 31,  
10 wherein said location is a position coordinate comprising longitude and latitude information.

34. The location-relevant service system of Claim 31,  
wherein said information for mapping an address to a location is provided using Geo-Coding.

35. The location-relevant service system of Claim 31,  
15 wherein said server provides location-relevant information based on said first location to said mobile unit.

36. The location-relevant service system of Claim 31,  
wherein said mobile unit provides a second telephone number of a second wireline telephone to said server, and said  
20 server determines a second location of said second telephone number using said information for mapping in said database.

37. The location-relevant service system of Claim 36,  
wherein said server provides location-relevant information based on said first location and said second location to  
25 said mobile unit.

38. The location-relevant service system of Claim 37,  
wherein said location-relevant information comprises driving directions from said first location to said second location.